Editorial

Preaching to the Choir: Advocating Routine HIV Testing

Joel E. Gallant, MD, MPH

[*AIDS Reader*. 2009;19:89-90]

Key words: HIV/AIDS • HIV testing • HIV screening

For the first 25 years of the AIDS epidemic, HIV testing was treated differently from all other types of medical diagnostic testing. Formal pretest and posttest counseling was required, and patients had to give written informed consent before being tested. The need for testing was focused primarily on assessment of risk, which required the taking of a detailed sexual and drug use history for which few clinicians had the time, training, or inclination. The rationale for this particular form of "HIV exceptionalism" was mostly historical, dating back to times when concerns about stigma; discrimination; and loss of insurance, jobs, or housing outweighed any modest benefit that might have been derived from early medical care.

The risk to benefit ratio changed almost overnight with the advent of the HAART era in 1996. The benefits of early diagnosis increased dramatically, while the risks associated with an HIV diagnosis, although not completely eliminated, decreased significantly. Now, data from numerous observational cohort studies suggest that there is a benefit to diagnosis at even earlier stages of HIV disease. For example, the North American AIDS Cohort Collaboration on Research and Design (NA-ACCORD) study found that mortality was 70% lower in patients who started therapy when their $CD4^+$ cell counts were between 350/μL and 500/μL than in those who waited until their $CD4^+$ cell count had fallen to below 350/μL, the current standard of care.[1]

In September 2006, the CDC dramatically changed its recommendations for HIV screening.[2] The new approach involved routine testing of everyone between the ages of 13 and 64 in all health care settings in the United States. It was recommended that written informed consent no longer be required. Instead, testing should be performed on an "opt-out" basis, meaning that patients should be informed verbally or in writing that they will be tested, which they can then refuse without compromise of their health care. Pretest counseling, while desirable, should no longer be required for HIV screening. Those who test positive should understand the results and have access to HIV care.

Dr Gallant *is professor of medicine and epidemiology in the division of infectious diseases at Johns Hopkins University School of Medicine, Baltimore, and editor in chief of* The AIDS Reader.

For the most part, the response to the new CDC recommendations has been favorable. Dozens of professional societies have endorsed routine testing, including most recently the American College of Physicians. However, 2 years later, implementation of the guidelines remains poor.[3] A recent article by Bartlett and colleagues[4] documented the multiple barriers to widespread implementation of the new HIV screening policy. Several states continue to require written informed consent and formal pretest counseling, although the number is gradually decreasing with changes in state legislation. Other obstacles to widespread implementation have included persistent concerns about the lack of mandatory counseling and the potential for stigma or discrimination.

It is clear that our previous approaches to HIV diagnosis and prevention have not worked. Almost one-quarter of the 1.1 million Americans infected with HIV are believed to be unaware of their serostatus,[2] and this group may account for 50% to 70% of new sexually transmitted infections. Persons infected with HIV are frequently in advanced stages of disease before the diagnosis is made; surveillance data have found that in nearly 40% of patients, HIV infection was diagnosed within a year of a subsequent AIDS diagnosis.[5] Furthermore, the average $CD4^+$ cell count at the time of initiation of antiretroviral therapy for US patients between 2003 and 2005 was only 187/μL.[6] Bartlett and colleagues[4] extrapolated Maryland data nationally and estimated that late presentation resulted in 100,000 life-years lost.

Another barrier to routine testing is the cost of the test and concerns about the cost-effectiveness of a routine screening strategy. However, cost-effectiveness analyses have estimated that routine HIV screening costs $50,000 to $64,000 per quality-adjusted life-year in areas where the prevalence is 0.05% to 0.1%.[7-9] This cost estimate puts routine HIV screening in the range of other routinely recommended interventions, such as Pap smears and screening colonoscopy, and screening for HIV involves a much simpler test in terms of clinician time, effort, and training. Of course, the cost-effectiveness increases in areas of higher seroprevalence.

Although the risk of discrimination and stigma cannot be eliminated entirely, bad outcomes from HIV testing itself remain anecdotal and few in number, while the consequences of delayed diagnosis are plentiful and often

tragic. Not long ago, a patient was referred to me after having been hospitalized for several weeks with respiratory failure and acute respiratory distress syndrome as a result of *Pneumocystis* pneumonia (PCP). He had required mechanical ventilation and was now receiving home oxygen therapy.

In reviewing this patient's medical history, I learned that a few years earlier he had been hospitalized for several days with an unexplained febrile illness. He had been seen by numerous consultants, and his workup was exhaustive but nondiagnostic. He was ultimately sent home on an empiric treatment regimen for a combination of Rocky Mountain spotted fever and Lyme disease, despite the lack of serological evidence for either. During his extensive evaluation, no HIV test was ever performed, presumably because of the absence of any identifiable risk factors, although there was no indication in the medical record that anyone had asked him about HIV risk. Several months after this initial hospitalization, his wife was told she had "viral meningitis"—an unlikely diagnosis in the middle of winter. Again, no HIV test was performed, and the possibility of acute retroviral syndrome was not entertained; she was only later found to be HIV-positive, after her husband was hospitalized with PCP.

One could argue that these 2 cases represent not a failure of HIV screening but a failure of multiple physicians to recognize clinical manifestations of HIV disease. Nevertheless, had the HIV serology been a routine test rather than one that required informed consent after the asking of potentially embarrassing questions, the husband would have avoided a long, painful, and expensive second hospitalization, and his wife might have avoided infection altogether.

Advocating routine HIV testing to readers of this journal may be "preaching to the choir," since the burden of responsibility falls not on HIV practitioners but on clinicians working in primary care practices, emergency departments, and walk-in clinics. Nevertheless, clinicians who treat persons with HIV/AIDS must now become vocal advocates for routine HIV screening. HIV infection is unique in that we have the ability to test for a highly treatable but otherwise fatal disease with an inexpensive and accurate test, yet so often fail to do so. □

References

1. Kitahata MM, Gange SJ, Moore RD. Initiating rather than deferring HAART at a CD4 count between 351-500 cells/mm^3 is associated with improved survival. 48th Annual ICAAC/IDSA 46th Annual Meeting; October 25-28, 2008; Washington, DC. Abstract H-896b.
2. Branson BM, Handsfield HH, Lampe MA, et al; Centers for Disease Control and Prevention. Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings. *MMWR*. 2006;55(RR-14):1-17.
3. Burke RC, Sepkowitz KA, Bernstein KT, et al. Why don't physicians test for HIV? A review of the US literature. *AIDS*. 2007;21:1617-1624.
4. Bartlett JG, Branson BM, Fenton K, et al. Opt-out testing for human immunodeficiency virus in the United States: progress and challenges. *JAMA*. 2008;300:945-951.
5. Centers for Disease Control and Prevention. Late versus early testing of HIV—16 sites, United States 2000-2003. *MMWR*. 2003;52:581-586.
6. Egger M. Outcomes of ART in resource limited and industrialized countries. 14th Conference on Retroviruses and Opportunistic Infections; February 25-28, 2007; Los Angeles. Abstract 62.
7. Walensky RP, Weinstein MC, Kimmel AD, et al. Routine human immunodeficiency virus testing: an economic evaluation of current guidelines. *Am J Med*. 2005;118:292-300.
8. Sanders GD, Bayoumi AM, Sundaram V, et al. Cost-effectiveness of screening for HIV in the era of highly active antiretroviral therapy. *N Engl J Med*. 2005;352:570-585.
9. Paltiel AD, Weinstein MC, Kimmel AD, et al. Expanded screening for HIV in the United States—an analysis of cost-effectiveness. *N Engl J Med*. 2005;352:586-595.

CORRECTION: In Dr Gallant's Editorial in the February issue, the CASCADE cohort study was misidentified. The study is the Concerted Action on SeroConversion to AIDS and Death in Europe study and not the cardiovascular drug study that is referred to by the same acronym. We regret the error.

—John Hawes, Editor